

Appl. No. 10/674,228
Reply to Office Action of February 12, 2007
Response dated July 10, 2007

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended) A method for identifying cellular protein antigens proteins, to which a subject with cancer produces autoantibodies, said method consisting of: (a) extracting proteins from a sample of cells; (b) separating the extracted proteins by two-dimensional electrophoresis; (c) transferring the proteins separated by two-dimensional electrophoresis to a membrane; (d) incubating the membrane with serum from a subject known to have the cancer; (e) detecting the proteins to which autoantibodies in the patients serum have bound; and (f) comparing the proteins to which antibodies in the subject's serum sample bind to proteins to which antibodies in control serum sample bind, wherein those proteins bound by antibodies in the subject's serum but not the control serum are identified as cellular protein antigens proteins to which a subject with cancer produces autoantibodies.

Claim 2 (original) The method of claim 1 wherein the sample of cells is derived from the subject's tumor.

Claim 3 (canceled)

Claim 4 (original) The method of claim 1 wherein the step of detecting the proteins to which autoantibodies in the subject's serum sample have bound comprises the use of a

NYC/321040.1

3

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signal-generating component bound to an antibody that is specific for antibodies in the subject's sample.

Claims 5-21 (Canceled)